

CLAIMS

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What is claimed is:

1 1. Extrusion head for producing a tubular parison for the manufacture of blow-
2 molded plastic hollow bodies, including an adjustable ring-shaped tube
3 outlet nozzle with annular nozzle/mandrel gap adjustment elements which
4 permit a targeted adjustment of the nozzle gap for varying the wall thickness
5 of the exiting parison, characterized in that at least three separate
6 nozzle/mandrel gap adjustment elements (D 0 = mandrel, DS I, DS II, DS
7 III) which are differently profiled and exchangeable, and which individually
8 or/and simultaneously can be brought into active engagement in the nozzle
9 gap with the exiting parison from inside and outside, wherein at least two of
10 the adjustment elements (D 0 = mandrel, DS I, DS II, DS III) is hereby
11 adjustable and respectively provided with an adjustment drive.

1 2. Extrusion head according to claim 1, characterized in that the third
2 additional adjustment element (DS II) is provided for the adjustment of a
3 special profile (e. g. tooth profile) below the adjustment element (DS I) and
4 adapted for acting as last wall thickness influence on the exiting tube.

1 3. Extrusion head according to claim 1 ~~or 2~~, characterized in that the
2 lowermost inner edge of the third adjustment element (DS II), which can be
3 brought into engagement with the exiting tube, is disposed at the same level
4 or slightly above the lowermost outer edge of the central mandrel (D 0).

1 4. Extrusion head according to claim 1, ~~2 or 3~~, characterized in that the third
2 adjustment element (DS II) is provided with its own adjustment drive and is
3 guided for movement and displacement in axial direction.

1 5. Extrusion head according to claim 4, characterized in that the adjustment
2 elements (D 0, D 0*, DS I, DS II, DS III) are provided with a quick
3 attachment and configured for easy exchange.

1 6. Extrusion head according to ~~one of the preceding claims 1 to 5~~,
2 characterized in that the third adjustment element (DS II) is of split
3 configuration and made of two 180° half ring segments which are provided
4 with a separate adjustment drive and guided for movement and
5 displacement in radial direction.

1 7. Extrusion head according to ~~one of the preceding claims 1 through 6~~,
2 characterized in that there is provided between adjustment element (DS I)
3 and adjustment element (DS II) a further adjustment element (DS III) which
4 is adjustable, e.g. supported for rotation in circumferential direction

1 8. Extrusion head according to claim 7, characterized in that the adjustment
2 element (DS III) has the same special profile (e.g. tooth profile) as the
3 adjustment element (DS I).

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1 9. Extrusion head according to ~~one of the preceding claims 1 to 8,~~
2 characterized in that the axially adjustable adjustment element D 0*
3 supported on the mandrel holder (12) for axial displacement is provided with
4 a special profile (e.g. tooth profile).

1 10. Extrusion head according to claim 9, characterized in that the adjustment
2 element (D 0*) is provided with a special profile (e.g. tooth profile), that the
3 adjustment element (DS I) is provided without profile and smooth
4 throughout about its circumference, and that the adjustment element (DS II)
5 is provided with an oval-profile known per se.

1 11. Extrusion head according to ~~one of the preceding claims 1 to 10,~~
2 characterized in that the adjustment element (D 0*) is provided with a
3 rectangular tooth profile, wherein - for a 220 liters plastic drum (55 U.S.
4 gallons) with an outer diameter of about 585 mm at drum weight of about
5 9.5 kg - the diameter of the adjustment element is about 190 mm and the
6 inner and outer ring edges interacting with the ejected tube having
7 alternately about 60 grooves of half-round configuration as viewed in cross
8 section, and a complementary number of rectangular teeth, with the width of
9 the grooves being narrower than the width of the teeth.

1 12. Extrusion head according to claim 11, characterized in that the with of the
2 teeth is about 5mm, and the width of the grooves is about 4 mm, at a radial
3 depth of the grooves of about 10 mm.

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